

IN THE CLAIMS

Please amend the claims as indicated in the following listing of claims, which replaces all previous listings of claims.

1. (Previously presented) An isolated and purified polynucleotide encoding an archaeal replication factor A (“RFA”), wherein the polynucleotide is selected from the group consisting of: a polynucleotide comprising the nucleotide sequence set forth in Figure 16 (SEQ ID NO: 65); and a polynucleotide encoding an amino acid sequence comprising the amino acid sequence set forth in Figure 17 (SEQ ID NO: 66).
2. (Original) The polynucleotide of claim 1, wherein the polynucleotide is cDNA.
3. (Original) The polynucleotide of claim 1, wherein the polynucleotide is mRNA.
- 4-6. (Canceled)
7. (Original) A vector comprising the polynucleotide of claim 1.
8. (Original) The vector of claim 7, wherein the vector is a plasmid.
9. (Original) The vector of claim 7, wherein the vector is a bacteriophage.
10. (Original) The vector of claim 7, wherein the vector is a retrovirus.
11. (Original) The vector of claim 7, wherein the vector is an adenovirus.
12. (Previously presented) An isolated host cell comprising the vector of claim 7.
13. (Previously presented) The isolated host cell of claim 12, wherein the isolated host cell is a prokaryotic cell.

14. (Previously presented) The isolated host cell of claim 12, wherein the isolated host cell is a eukaryotic cell.

15-22. (Canceled)

23. (Original) A method for producing replication accessory factors comprising: expressing the polynucleotide of the vector of claim 7 in a host cell; and purifying the expressed product.

24. (Original) The method of claim 23, wherein the host cell is a prokaryotic cell.

25. (Original) The method of claim 23, wherein the host cell is a eukaryotic cell.

26-56. (Canceled)

57. (Currently amended) An isolated and purified polynucleotide encoding an archaeal replication factor A ("RFA") comprising: (a) a polynucleotide comprising the nucleotide sequence set forth in Figure 16 (SEQ ID NO: 65) or the nucleotide sequence of Figure 16 starting with nucleotide 7; (b) a polynucleotide encoding an amino acid sequence comprising the amino acid sequence set forth in Figure 17 (SEQ ID NO:66) or the amino acid sequence of Figure 17 starting with amino acid 3; or (c) a polynucleotide encoding an amino acid sequence possessing 95% identity to SEQ ID NO: 66, wherein the encoded amino acid sequence binds to single stranded DNA.

58. (Original) The polynucleotide of claim 57, wherein the polynucleotide is cDNA.

59. (Original) The polynucleotide of claim 57, wherein the polynucleotide is mRNA.

60-74. (Canceled)